

ABSTRAK

Tata kelola bisnis pada ID-KURSI RODA menghadapi inefisiensi operasional karena pemantauan stok dan rekapitulasi sewa masih manual lewat WhatsApp, sementara platform *web* masih berupa katalog statis. Ketergantungan pada metode konvensional ini memicu risiko ketidaksinkronan data, bias durasi sewa, serta *human error* pada perhitungan biaya perpanjangan. Untuk mengatasi permasalahan tersebut, penelitian ini berhasil membangun sistem informasi manajemen rental kursi roda berbasis website yang dinamis dan terintegrasi. Pengembangan sistem menggunakan metode *Waterfall*, meliputi analisis kebutuhan, perancangan, implementasi, hingga pengujian. Data dikumpulkan melalui teknik observasi, wawancara mendalam pemilik, studi dokumen operasional, analisis ulasan pelanggan, serta studi pustaka tentang teknologi React.js dan MongoDB. Penelitian ini menghasilkan sistem informasi manajemen terintegrasi pada platform ID-KURSI RODA yang dilengkapi fitur pembaruan stok otomatis serta penghitungan tagihan otomatis, sehingga mempermudah kendali operasional internal pengelola sekaligus memberikan kemudahan transaksi rental kursi roda bagi masyarakat.

Kata Kunci: sistem informasi, rental kursi roda, website, metode *waterfall*, penghitungan tagihan otomatis.

ABSTRACT

The Business governance of ID-KURSI RODA faces operational inefficiencies as stock monitoring and rental recapitulation are still conducted manually through WhatsApp, while the web platform remains a static catalog. Reliance on these conventional methods triggers risks of data desynchronization, rental duration bias, and human errors in extension fee calculations. To resolve these issues, this study successfully developed a dynamic and integrated web based wheelchair rental management information system. The system development utilized the Waterfall method, encompassing requirements analysis, design, implementation, and testing phases. Data were gathered through observation, in depth interviews with the owner, operational document studies, customer review analysis, and literature reviews regarding React.js and MongoDB technologies. This research delivered an integrated management information system on the ID-KURSI RODA platform equipped with automated stock update and automated billing features, thereby streamlining internal operational control for the administrator while simultaneously facilitating seamless wheelchair rental transactions for the public.

Keywords: *information systems, wheelchair rental, website, waterfall method, automated billing calculation.*